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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,983	11/26/2001	Gernot M. Hirse	22750/508	2845

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EXAMINER

GRAHAM, GARY K

ART UNIT

PAPER NUMBER

1744

DATE MAILED: 08/14/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/994,983

Applicant(s)

HIRSE, GERNOT M.

Examiner

Gary K Graham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18,20,21 and 29 is/are allowed.
- 6) ☒ Claim(s) 11-17,19,22-28 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 May 2003 has been entered.

### *Priority*

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 25 November 2000. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22, 23 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Norway patent 76184.

The Norway patent discloses the invention as is claimed. Note slide (2) slidably mounted to handle (1) for moving wringer arms (4,6). A mop covering is provided on carrier plates (11) which are pivotally coupled to a common carrier piece (13) by pins (12). The wringer arms engage the backs of the carrier plates to move such upon activation of the slide. Note that either one or both of the parts (13) can be considered to be the common carrier center piece. A universal or cardan joint is defined by pins (14,16) which enable the center piece (no matter how defined) to pivot to all sides as does applicant's.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 13-16, 22, 23, 25-27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughn '744 in view of Altrock '025.

The patent to Vaughn discloses a floor mop (figs. 14-19) substantially as is claimed, including a pair of carrier plates (66) pivotally connected to a center piece (62), a mop handle (20) coupled with the center piece, a wringer slide (46) mounted on said handle in non-rotatable fashion by slot/pin (71,72) and said wringer slide having arms (49) extending therefrom with rollers (50) thereon. Said rollers are adapted to engage rising guide surfaces (34') provided on the back of said carrier plates.

The patent to Vaughn discloses all of the above recited subject matter with the exception of the handle being coupled with the center piece via a cardan or universal joint.

The patent to Altrock discloses a wringer mop (figs. 1,5) with pivotally mounted carrier plates (19,20) including guide surfaces (32,33) on backs thereof which are engaged by roller wheel elements (28,29) provided on arms of operating element (3). A universal joint is provided between the mop handle (1) and the mop head (2). Such joint is established by swivel element (4) provided between the handle (1) and the working element (2). Altrock employs the universal joint to enable increased maneuverability of the mop by a user. The swivel element is elongated to define a longitudinal axis therealong and has an axle portion (8) to define a loop axis transverse to the longitudinal axis. The handle (1) is pivotally coupled to the portion (8) to allow the handle to move about the loop axis while the combined handle/swivel element is pivotally moveable with respect to the working element (2) about the longitudinal axis. The swivel element can pivot side to side with respect to the working element (2). Such movement about these two transverse axes together provides for the universal connection allowing the handle to move in more than a single plane.

It would have been obvious to one of skill in the art to provide the mop of Vaughn with a universal joint between the handle and the working element, which in Vaughn's case would include the center piece, as clearly suggested by Altrock, to enable increased maneuverability of the mop working element with respect to the handle. Altrock teaches the concept of universal connection between working element and handle. It appears such could be employed in Vaughn.

Claims 12, 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughn '744 in view of Altrock '025 as applied to claim 11 above, and further in view of Richardson et al '783.

The patents to Vaughn and Altrock disclose all of the above recited subject matter with the exception of a spring device to move the carrier plates to an extended position and ends of the wringer arms being brought into direct contact with the guide surfaces on the back of the carrier plates.

The patent to Richardson discloses a wringer floor mop that employs a spring device (56) to move the carrier plates (44,46) to their extended position. Richardson also discloses the ends of wringer arms (64,66) directly engaging the carrier plates (44,46).

It would have been obvious to one of skill in the art to provide the mop of Vaughn with springs, as clearly suggested by Richardson, to help motivate the carrier plates to their extended position after wringing. Use of return springs is well known.

With respect to claim 19, it would have been obvious to one of skill in the art to eliminate the roller wheels of Vaughn and have the free ends of the wringer arms engage the back of the carrier plate directly, as clearly suggested by Richardson, to eliminate such element and thus reduce the cost of the mop structure. Further, elimination of an element and its associated function is an obvious expedient if the remain elements perform the same functions as before. Obviously, the roller wheels are provided to reduce friction between the arms and the carrier plate. Merely eliminating such does not appear of patentable significance.

Additionally, with respect to claim 19, the rollers are considered to define convex surfaces.

Claims 17 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughn '744 in view of Altrock '025 as applied to claims 11, 15, 22, 26 above, and further in view of Chiang '084.

The patents to Vaughn and Altrock disclose all of the above recited subject matter with the exception of the roller element being a ball.

The patent to Chiang discloses an apparatus (fig. 9) wherein moving support or contact elements (102) can be in either roller ball or roller wheel form (not shown but disclosed). Attention is directed to column 4, lines 5-8. Note that Chiang is only relied upon for the teaching of using either roller balls or roller wheels as supporting contact elements.

While Vaughn does employ roller wheels to contact the guide surfaces on the backs of the carrier plates, use of a roller ball would be well within that which one of skill in the art would find obvious. Roller balls and roller wheels are recognized art equivalent structures when providing movable contact between surfaces. Further, as set forth above, Chiang suggests that roller balls and roller wheels are well substituted for one another. It would have been obvious to one of skill in the art to provide roller balls instead of a roller wheels for the mop of Vaughn as a mere choice of art recognized contact structures and as clearly suggested by Chiang, lacking any criticality of such structure.



Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norway patent 76184 in view of Richardson et al '783.

The Norway patent discloses all of the above recited subject matter with the exception of a spring device to bias the carrier plates to an extended position.

The patent to Richardson discloses a wringer floor mop that employs a spring device (56) to move the carrier plates (44,46) to their extended position.

It would have been obvious to one of skill in the art to provide the mop of the Norway patent with springs, as clearly suggested by Richardson, to help motivate the carrier plates to their extended position after wringing. Use of return springs is well known.

### *Response to Arguments*

Applicant's arguments filed 29 May 2003 have been fully considered but they are not persuasive.

Applicant's argument with respect to the rejection of claims as being anticipated by the Norway patent are noted but not persuasive. Applicant argues that the arms of the Norway patent are fixed to the plates (11). Such does not appear accurate. While the arms are pivotally coupled to the plates, they are not fixed thereto. The arms move with respect to the carrier plates. Such pivotal coupling is considered to meet the limitation of the arms being "movably engageable" with the carrier plates. The arms are engaged with the carrier plates via, for example, pivots (9) which enable movement between said arms and plates. Perhaps applicant could add

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that the ends of the arms are in sliding contact with the carrier plates or add that the arms move into and out of engagement with the carrier plates. Such would appear to distinguish from the Norway patent.

Applicant's arguments with respect to the rejection of claims as being unpatentable over Vaughn in view of Altrock are noted but not persuasive. The thrust of applicant's argument is that Altrock does not disclose a universal joint that enables the handle to move to all sides. Applicant further argues that the handle of Altrock can only move in a single plane and that his use of the term universal is misleading. Such is not persuasive.

Altrock does disclose a universal connection between the handle (1) and the working element (2). Such universal connection is achieved through the connection or swivel element (4). The swivel element is elongated to define a longitudinal axis therealong and has an axle portion (8) to define a loop axis transverse to the longitudinal axis. The handle (1) is pivotally coupled to the portion (8) to allow the handle to move about the loop axis while the combined handle/swivel element is pivotally moveable with respect to the working element (2) about the longitudinal axis. Such movement about these transverse axes together provides for the universal connection allowing the handle to move in more than a single plane. While it is true that the portion (8) of Altrock only allows for movement of the handle in a single plane, such is only part of the universal connection. The swivel element is pivotally coupled to the carrier plates.

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Applicant's argument with respect to claim 19 and the limitation that the arms are brought into direct contact with the guide surfaces is noted but not persuasive. As stated above, elimination of an element and its function is an obvious expedient. Further, Richardson teaches that arms can directly engage the carrier plates without the use of rollers.

*Allowable Subject Matter*

Claims 18, 20, 21 and 29 are allowed.

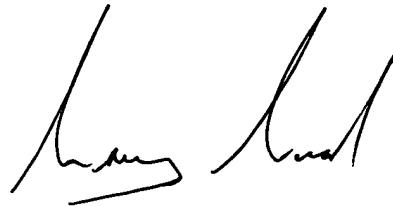
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary K Graham whose telephone number is 703-308-1270. The examiner can normally be reached on Tuesday to Friday (6:30-4:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on 703-308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to read "Gary K. Graham". The signature is stylized with a large, sweeping initial "G" and a long, horizontal stroke extending to the right.

Gary K Graham  
Primary Examiner  
Art Unit 1744

GKG  
August 7, 2003